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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, HENRY N

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/468,581

Applicant(s)

MINAMI ET AL.

Examiner

HENRY N. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-10, 13-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-10, 13-15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/9/02 (paper NO. 11) has been entered.
2. Claims 3-10, 13-15, and 17-24 are pending in this application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 20-22 recites the limitation "the mother monitor" in line 4 of claim 20. There is insufficient antecedent basis for this limitation in the claim.

For the purpose of this Office action, the examiner assumes that said above limitation "the mother monitor" id changed to -- the first display device --.

The applicant is required to affirm or to reverse this assumption in response to this Office action.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 9-10, ~~15~~¹⁷, 15, and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milner et al (U.S. Patent 6,339,410, hereinafter referred to as "Milner") in view of Gouko (U.S. Patent 6,222,507) .

8. Regarding claim 3, Milner teaches a first display 42 having a display screen; a second display 30 having a display screen 32; a supporting mechanism 34, 35, 36, 40, 60, 62, 64, 66, 68, 70, and 72, which is mounted on an outside portion of the first display device 42 for supporting the second display device 30 rotatable about a first axis, which is parallel with a horizontal direction of the display screen of the first display device 42, and a second axis, which is parallel with a vertical direction of the display screen of the first display device 42; wherein the supporting mechanism includes a first supporting member 34, 35, 36, 40, 62, 64, 66, and 68 for supporting the second display device 30 rotatably about the first and second axes, and a second support member 60, 70, and 72 mounted on a side portion of the first display device (see figures 1 and 3; col. 9, lines 12-21, and 32-41). However, Milner does not teach the second display device 30 having a display screen smaller than the first display device. Gouko teaches a multi-monitor (a personal computer having a plurality of display panels (see col. 1, lines 5-6), comprising: a first display device 2 (Gouko says the main panel 2 as a primary display panel)

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having a display screen **2a** (a display surface 2a); a second display device **3** (Gouko says the sub panel 3 as a secondary display panel) having a display screen smaller than the first display device **2** (see figure 1; col. 3, lines 23-28, and line 37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Gouko in the device of Milner because this would provide an improved display system having a rotatable display device mounted to a side of another display device for conveniently and effectively displaying computer images. By this rationale, claim 3 is rejected.

9. Regarding claims 9 and 10, Milner shows the supporting mechanism is detachably mountable on the first display device 42 (see references recited above). Gouko shows the second display device **3** having a display screen smaller than the display screen **2a** of the first display device **2** (see figure 1). Claims 9 and 10 are dependent upon claim 3, and are therefore rejected on the same reasons set forth for claim 3, and by the reasons noted above.

10. Regarding claims 13, 15, and 17-19, which are similar to claims 3, and 3-10; wherein the first display device 42 is read on a mother monitor including a main body and a display screen (claim 13), and the second display 30 is read on an auxiliary display device (claim 17). Milner further teaches that the first supporting member 34, 35, 36, 40, 62, 64, 66, and 68 is slidably in a vertical direction of the second support member 60, 70, and 72 (see figure 3). Claims 13, 15, and 17-19 are therefore rejected on the same reasons set forth in claims 3 and 9-10, and by the reasons noted above.

11. Regarding claims 20-24, Milner further shows the first end of the second support member 60, 70, and 72 is mounted on top portion of the first display device. Claims 20-24 are dependent

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upon claims 3, 13, and 17, and are rejected on the same reasons set forth in claims 3, 13 and 17, and by the reason discussed above.

12. Claims 4, 6, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milner in view of Gouko (hereinafter referred to as "Milner-Gouko") as applied to claims 3 and 13 above, and further in view of Crossland et al (U.S. Patent 4,720,781, hereinafter referred to as "Crossland").

13. Regarding claim 4, Milner-Gouko teaches generally all except for the second display device is driven in accordance with the same operation system as the first display device. Crossland teaches a multi-monitor device having a first display device 2 and a second display device 3 (Crossland calls an office terminal having a first and a second flat panel display modules 2 and 3. See FIG. 1), and the first and the second display devices are driven by an operating system, for example MIRTOS (Crossland says an operating system, e.g. MIRTOS, is used to support module software driven the display modules) (see Col. 4, lines 6-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings as taught by Crossland using the same operating system for driving display modules of a display system in the device of Milner-Gouko because this would greatly increased efficiency and flexibility (see Crossland, col. 3, lines 19-21). Claim 4 is dependent upon claim 1, and is rejected on the same reasons set forth in claim 1, and by the rational discussed above.

14. Regarding claim 6, Gouko further teaches an image signal output device (the personal computer) which outputs image signals to be displayed on the display screens of the first and the second display devices (Gouko says the personal computer provides a plurality of images to be

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displayed in a plurality of display panels. Accordingly, it could be said that the personal computer outputs image signals to be displayed on the display screens of the first and the second display devices) (see Col. 5, lines 29-31, and lines 41-43). Crossland shows an image signal output device 13 (a controller or a central processor 13), which outputs image signals to be displayed on the display screens of the first and the second display devices 12, 16 using display interface 11 and 15 (See FIG. 6; col. 3, lines 12-16, lines 58-63). Claim 6 is dependent upon claim 4, and is rejected on the same reasons set forth in claim 4, and by the reasons noted above.

15. Regarding claim 14, which is dependent upon claim 13, and includes the same claimed element of claims 4, and is rejected on the same reasons set forth in claims 4 and 13.

16. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milner-Gouko in view of Crossland (hereinafter referred to as "Milner-Gouko-Crossland") as applied to claim 4 above, and further in view of Register (U.S. Patent 5,590,021).

Milner-Gouko-Crossland teaches generally all the limitation as discussed in claims 1 and 4. However, Milner-Gouko-Crossland do not teach expressly the multi-monitor further comprising a first image signal output device which outputs an image signal representing an image to be displayed on the display screen of the first display device, and a second image signal output device which outputs an image signal representing an image to be displayed on the screen of the second display device. Register teaches a multi-monitor system (See FIG. 1) including a first image signal output device 12 (a computer 12) which outputs an image signal representing an image to be displayed on the display screen 29 of the first display device 16 (the display monitor 16), and a second image signal output device 24 (a display controller 24) which outputs an image

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signal representing an image to be displayed on the screen 28 of the second display device 22 (a liquid crystal display module 22) (See FIGS. 1 and 2; col. 3, lines 28-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using output devices as taught by Register in the device of Gouko-Crossland because this would provide an improved computer system having a secondary display which utilizes a minimum amount of desk space, and conveniently positioned in close proximity of the primary display of the computer for increasing productivity (See Register, col. 1, lines 52; and col. 4, lines 36-40). Claim 5 is dependent upon claims 3 and 4, and is rejected on the same reasons set forth in claims 3 and 4, and by the rationale discussed above.

17. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Milner-Gouko-Crossland" as applied to claims 1, 4, and 6 above, and further in view of Fowler (U.S. Patent 6,302,612)

18. Regarding claim 7, Milner-Gouko-Crossland teaches a multi-monitor as discussed in claims 1, 4, and 6 above. However, Milner-Gouko-Crossland do not teach expressly the multi-monitor further comprising a first wiring which connects the image signal output device with the first display device, and a second wiring which connects the image signal output device with the second display device. Fowler teaches a multi-monitor including a first display device 110 (the primary LCD 110) hinged mounted to base computer 100 (a base 100), and a second display device 111 (a hidden secondary LCD 111) (See FIGS. 9 and 10; and col. 4, lines 4-6). Fowler further teaches the use of a first wiring 109 (a ribbon wire 109) which connects the image signal output device 105 (a base 105) with a first display device 101 (a primary LCD 101) (See FIG. 8;

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col. 3, line 2, and lines 63-64), and a second wiring 127 (a connecting wire 127) which connects the image signal output device 100 with the second display device 111 (See FIG. 11; col. 4, lines 17-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the use of the first and the second wirings as taught by Fowler in the device of Gouko-Crossland because this would provide a convenient viewing screen capable of providing more flexibility and more freedom for moving the display devices for improving the operation efficiency of a computer system, and of a user (See Fowler; col. 1, lines 44-49; and col. 3, lines 61-67). Claim 7 is dependent upon claim 6, and is rejected on the same reasons set forth in claim 6, and by the rational discussed above.

19. Regarding claim 8, Gouko-Crossland teaches a multi-monitor as discussed in claims 1, 4, and 6 above. However, Gouko-Crossland do not teach expressly the multi-monitor further comprising a first wiring which connects the image signal output device with the first display device, and a second wiring which connects the first display device with the second display device. Fowler also teaches the use of a first wiring 109 (a connecting ribbon wire 109) which connects the image signal output device 105 (the base member or the base computer 105) with the first display device 101 (the primary LCD 101), and a second wiring 116 (a connecting ribbon 116) which connects the first display device 101 with the second display device 120 (the side or secondary LCD 120). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the first and the second wirings connections as taught by Fowler in the device of Gouko-Crossland because this would provide a compact personal computer which has a plurality of displays panel so that the utility of a user of said computer is

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improved (See Gouko, Col. 1, lines 12-13, and lines 57-60). Claim 8 is dependent upon claim 6, and is rejected on the same reasons set forth in claim 6, and by the rationale noted above.

Response to Arguments

20. Applicant's arguments with respect to claims 3-10, 13-15, and 17-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY N. TRAN whose telephone number is (703) 308-8410. The examiner can normally be reached on Mon - Fri from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD A. HJERPE, can be reached at (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office Whose telephone number is (703) 306-0377.

Henry N. Tran

HENRY N. TRAN
Examiner
Art Unit 2674

hnt
February 23, 2003